

PTO/SB/21 (08-03)

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	10/689,423	
	Filing Date	October 20, 2003	
	First Named Inventor	Edward L. Jenner et al.	
	Art Unit	3663; Confirmation No. 2792	
	Examiner Name	N/A	
Total Number of Pages in This Submission	4	Attorney Docket Number	IO-1095US-D1

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): Postcard; five (5) enclosed references
<b>Remarks</b> The commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 13-0010 (IO-1095US-D1)		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	David A. Walker, Reg. No. 52,334
Signature	<i>David A. Walker</i>
Date	February 19, 2004

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Beth Pearson-Naul		
Signature	<i>Beth Pearson-Naul</i>	Date	February 23, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Edward L. Jenner et al.

SERIAL NO.: 10/689,423

FILED: October 20, 2003

TITLE: "System for Estimating Azimuthal  
Variations in Seismic Data"

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Group Art Unit: 3663

Examiner: Not Assigned

Confirmation No.: 2792

Atty Docket No.: IO-1095-D1

MS: DD  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the references listed on the attached Form PTO-1449 be considered by the Examiner and made of record.

This Information Disclosure Statement is not to be considered as a representation that a search has been made or that no other material information as defined under 37 C.F.R. § 1.56(a) exists. The information disclosure statement submitted herewith is being filed before the mailing date of the first office action for this application.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 13-0010 (IO-1095US-D1).

Respectfully submitted,

David A. Walker, Reg. No. 52,334  
Madan, Mossman & Sriram, P.C.  
2603 Augusta, Suite 700  
Houston, Texas 77057  
Telephone: (713) 266-1130  
Facsimile: (713) 266-8510

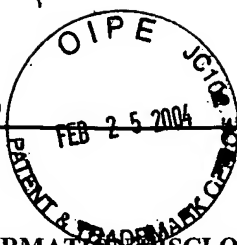
Dated: February 19, 2004

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

I hereby certify that this paper, along with any referred to as being attached or enclosed, is being forwarded to MS DD, Commissioner for Patents, Alexandria, Virginia 22313-1450, via the United States Postal Service, First Class Mail, prepaid on the 19th day of February, 2004.

By:

Beth Pearson-Naul



## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

IO-1095US-D1

SERIAL NO.

10/689,423

APPLICANT

Edward L. Jenner et al.

(Use several sheets if necessary)

FILING DATE

October 20, 2003

GROUP / CONFIRMATION

3663/ 2792

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	3,414,370	12/68	Baumgartner	21	58	01/64
	AB	3,611,278	10/71	Guinzy	340	15.5	07/69
	AC	4,570,246	02/86	Herkenhoff et al.	367	68	01/82
	AD	4,613,960	09/86	Hinkley et al.	367	51	09/83
	AE	4,755,972	07/88	Hanson et al.	367	75	09/85
	AF	4,970,696	11/90	Crews et al.	367	15	03/90
	AG	5,258,960	11/93	Swan	367	38	11/92

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO	
	AH							
	AI							
	AJ							

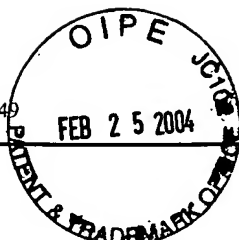
## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	AK	Heloise B. Lynn et al.; <i>Relationship of P-wave seismic attributes, azimuthal anisotropy, and commercial gas pay in 3-D P-wave multiazimuth data, Rulison Field, Piceance Basin, Colorado</i> , Geophysics, Vol. 64, No. 4 (July-August 1999); pp. 1293-1311, 15 Figs., 2 Tables.
	AL	Bjorn Ursin et al.; <i>Robust AVO analysis</i> , Geophysics, Vol. 60, No. 2 (March-April 1995); pp. 317-326, 9 Figs., 3 Tables.
	AM	Andreas Rüger; <i>Variation of P-wave reflectivity with offset and azimuth in anisotropic media</i> , Geophysics Vol. 53, No. 3 (May-June 1998); pp. 935-947, 7 Figs., 4 Tables.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next comment to applicant



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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA	5,508,973	04/96	Mallick et al.	367	38	06/94
	BB	5,532,978	06/96	Corrigan	367	75	12/93
	BC	5,737,220	04/98	Miller	364	421	06/94
	BD	5,764,516	06/98	Thompson et al.	364	421	12/95
	BE	5,933,789	08/99	Byun et al.	702	17	11/96
	BF	6,061,301	05/00	Corrigan	367	75	06/97
	BG	6,263,284B1	07/01	Crider et al.	702	14	04/99

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO	
	BH							
	BI							
	BJ							

## OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)

	BK	Robert E. Grimm et al.; <i>Detection and analysis of naturally fractured gas reservoirs: Multiazimuth seismic surveys in the Wind River basin, Wyoming</i> , Geophysics, Vol. 64, No. 4 (July-August 1990), pp. 1277-1292, 12 Figs., 2 Tables.
	BL	Arcangelo G. Sena; <i>Seismic traveltimes equations for azimuthally anisotropic and isotropic media: Estimation of interval elastic properties</i> , Geophysics, Vol. 56, No. 12 (December 1991), pp. 2090-2101, 7 Figs., 9 Tables.
	BM	

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